Application Serial No.: 10/790,687

Inventor(s): MUSSO et al.

Attorney Docket No.: 108910-00123

## AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A process for foaming polyurethanes comprising: adding to compositions used to make solid polymers azeotropic or near azeotropic foaming agent compositions as substitutes for CFC 11 to give a homogeneous foam having density of about 30 Kg/cm³, said foaming agent compositions based on di-fluoromethoxy-bis(difluoromethyl ether) and/or 1-difluoro methoxy-1,1,2,2-tetrafluoroethyl difluoromethyl ether, said foaming agent compositions selected from the group consisting of:

|     |  | Composition % by weight |
|-----|--|-------------------------|
| ÍV) | difluoromethoxy  |                         |
|     | bis(difluoromethyl ether)  | 1-99                    |
|     | (HCF <sub>2</sub> OCF <sub>2</sub> OCF <sub>2</sub> H);                        |                         |
|     | 1,1,1,3,3-pentafluorobutane  | 99-1                    |
|     | (CF <sub>3</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>3</sub> , HFC 365mfc) |                         |
| V)  | difluoromethoxy  |                         |
|     | bis(difluoromethyl ether)  | 1-40                    |
|     | (HCF <sub>2</sub> OCF <sub>2</sub> OCF <sub>2</sub> H);                        |                         |
|     | 1,1,1,4,4,4-hexafluorobutane   | 99-60                   |
|     | (CF <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub> , HFC 365ffa) |                         |

wherein the difluoromethoxy-bis(difluoromethyl ether) part optionally contains up to 40% by weight of 1-difluoromethoxy-1,1,2,2-tetrafluoroethyldifluoromethyl ether <u>based on total quantity of the difluoromethoxy-bis(difluoromethyl ether)</u>.

2. (Original) The process of claim 1, wherein said foaming agent compositions are selected from the group consisting of:

|     |   | composition<br>% by weight |
|-----|---|----------------------------|
| IV) | difluoromethoxy<br>bis(difluoromethyl ether)<br>(HCF <sub>2</sub> OCF <sub>2</sub> OCF <sub>2</sub> H);<br>1,1,1,3,3-pentafluorobutane<br>(CF <sub>3</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>3</sub> , HFC 365 mfc) | 10-98                      |
|     |   | 90-2                       |
| V)  | difluoromethoxy   |                            |

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| bis(difluoromethyl ether)  | 10-40 |
|--|-------|
| (HCF <sub>2</sub> OCF <sub>2</sub> OCF <sub>2</sub> H);                          |       |
| 1,1,1,4,4,4-hexafluorobutane   | 90-60 |
| (CF <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub> , HCF 356 ffa). |       |

3. (Original) The process of claim 1, wherein said foaming agent compositions are selected from the group consisting of:

|    |  | composition % by weight |
|----|--|-------------------------|
| D) | difluoromethoxy  |                         |
|    | bis(difluoromethyl ether)  | 60 % by wt.             |
|    | (HCF <sub>2</sub> OCF <sub>2</sub> OCF <sub>2</sub> H);                          |                         |
|    | 1,1,1,3,3-pentafluorobutane  | 40 % by wt.             |
|    | (CF <sub>3</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>3</sub> , HFC 365 mfc)  | · .                     |
| E) | difluoromethoxy  |                         |
|    | bis(difluoromethyl ether)  | 20 % by wt.             |
|    | (HCF <sub>2</sub> OCF <sub>2</sub> OCF <sub>2</sub> H);                          | •                       |
|    | 1,1,1,4,4,4-hexafluorobutane   | 80 % by wt.             |
|    | (CF <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub> , HCF 356 ffa). | •                       |
|    | ,  |                         |

- 4. (Original) The process according to claim 1, wherein said compositions are added in amounts in the range 1-15% by weight on the total preparation.
- 5. (Original) The process according to claim 1, wherein said compositions are used in combination with  $H_2O$  and/or  $CO_2$ .
- 6. (Currently Amended) The process according to claim 5, wherein the water amount is in the range 0.5-7 parts by weight on one [[or]] hundred parts of polyol.
- 7. (Original) The process according to claim 5, wherein the  $CO_2$  amount is in the rage 0.6-10 parts by weight on one hundred parts of polyol.
- 8. (Original) The process according to claim 5, wherein stabilizers for radicalic decomposition reactions are added, the concentration of which is in the range 0.1-5% by weight with respect to the foaming agent.

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9. (Currently Amended) Polyurethane polymer foaming compositions comprising, as blowing agent substitutes of CFC-11 to give a homogeneous foam having density of about 30 Kg/cm<sup>3</sup>, foaming agent azeotropic or near azeotropic compositions selected from the group consisting of:

|     |  | composition<br>% by weight |
|-----|--|----------------------------|
| IV) | difluoromethoxy  |                            |
|     | bis(difluoromethyl ether)  | 1-99                       |
|     | (HCF <sub>2</sub> OCF <sub>2</sub> OCF <sub>2</sub> H);                          |                            |
|     | 1,1,1,3,3-pentafluorobutane  | 99-1                       |
|     | (CF <sub>3</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>3</sub> , HFC 365 mfc)  |                            |
| V)  | difluoromethoxy  |                            |
|     | bis(difluoromethyl ether)  | 1-40                       |
|     | (HCF <sub>2</sub> OCF <sub>2</sub> OCF <sub>2</sub> H);                          |                            |
|     | 1,1,1,4,4,4-hexafluorobutane   | 99-60                      |
|     | (CF <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub> , HCF 356 ffa). |                            |
|     |  |                            |

wherein the diflouromethoxy-bis (difluoromethyl ether) parts optionally contains up to 40% by weight of 1-difluoromethoxy-1,1,2,2-tetrafluoroethyldifluoromethyl ether based on total quantity of the difluoromethoxy-bis(difluoromethyl ether).

10. (Original) Polyurethane polymer foaming compositions according to claim 9 comprising foaming agent selected from the group consisting of:

| 5) |  | composition % by weight |
|----|--|-------------------------|
| D) | difluoromethoxy<br>bis(difluoromethyl ether)<br>(HCF <sub>2</sub> OCF <sub>2</sub> OCF <sub>2</sub> H);        | 60 % by wt.             |
|    | 1,1,1,3,3-pentafluorobutane<br>(CF <sub>3</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>3</sub> , HFC 365 mfc) | 40 % by wt.             |
| E) | difluoromethoxy  |                         |
|    | bis(difluoromethyl ether)<br>(HCF <sub>2</sub> OCF <sub>2</sub> OCF <sub>2</sub> H);                           | 20 % by wt.             |
|    | 1,1,1,4,4,4-hexafluorobutane<br>(CF₃CH₂CH₂CF₃, HCF 356 ffa).   | 80 % by wt.             |